



# Polar Class Icebreakers

**Crew:** 20 officers, 140 enlisted and 20 scientists

**Original Cost:** Not Available

**Length:** 399 feet

**Beam:** 83.5 feet

**Draft:** 33.5 feet

**Displacement:** 13,190 tons

**Engine:** 2 diesels @ 18,000 HP

2 gas turbines @ 60,000 HP

**Speed:** 17 knots

**Range:** 28,275 miles

**Endurance:** 60-150 days

For more information on the Coast Guard visit the Internet at <http://www.uscg.mil>.

For recruiting information call 1.800.GET.USCG

**General Information:** Designed and built in the mid 1970's, CGC Polar Sea (WAGB-11) and its sister ship CGC Polar Star (WAGB-10) are the world's most powerful non-nuclear icebreakers.

The ships have 1 ¾ inch thick hulls that allow them to break up to 21 feet of new hard ice by effectively combining the forces of the ship's forward motion and the downward pull of gravity.

**Missions:** With a "running start," they land their bows on the ice, causing the stern to drop low into the water. As the stern's buoyancy causes it to rise rapidly, the ships will pivot, sending the weight of the bow onto the surface of the ice. If the ships should get stuck in the ice, they are equipped with

a heeling system that will shift 400 tons of water from side to side, creating a rocking motion to break it free. To prepare for the fuel-depleting task of breaking ice and the long distance it must travel to do so, the vessel can carry more than 1.3 million gallons of fuel. This provides 60-150 days of endurance. Polar class icebreakers can also support two H-65 helicopters, scientific teams, ice reconnaissance, cargo transfers, and search and rescue cases. There are five laboratories on board that serve as platforms for scientific missions. Accommodations are designed to provide a modern home at sea for more than 160 people. There are one, two and four-person staterooms, along with lounges, a library, and an exercise room.



USCG FILE PHOTO High resolution copy can be found at <http://www.uscg.mil/images.html>

The powerful icebreakers use massive adjustable props which allow the ships to go from ahead full to full back in 20 seconds.

Photos taken by: Date: High resolution copy can be found at <http://www.uscg.mil/images.html>



Photo taken by: PA2 Devilbiss Date: '97 High resolution copy can be found at <http://www.uscg.mil/images.html>

Home ported in Seattle, Polar ice-breakers travel thousands of miles every year to support scientific operations in the polar regions.

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